

Phytosociological study of Andrew's field and Tsaba-Tsaba nature reserve,
Bredasdorp district, Western Cape.

by

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The works of the LORD are
great, Studied by all who
have a pleasure in them.
Psalm 111: 2 (NKJV)



Dedicated to my parents

ABSTRACT

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The vegetation of Andrew's Field and Tsaba-Tsaba nature reserve, Bredasdorp district, Western Cape was hierarchical classified using Braun-Blanquet procedures and TWINSpan. The resulting 10 plant communities, 19 sub-communities and four variants, were described and ecological interpreted. The vegetation was sampled using 171 randomly stratified sample plots. The floristic composition, Braun-Blanquet cover-abundance scale of each species, and various environmental variables were recorded in each sample plot. The relation between the vegetation units and the associated environmental gradients was confirmed by DECORANA ordination, conducted on the floristic data. The conservation priority of each vegetation unit was determined by taking Red Data List species, limestone endemic species and Cape Floristic Region endemic species into consideration. The distribution of the vegetation units can mainly be ascribed to differences in the clay/sand content of the soil and the degree of exposure of the vegetation to the dominating winds (Southeastern and Northwestern) of the area.

UITTREKSEL

Fitososiologiese studie van Andrew's field en Tsaba-Tsaba natuurresewaat,
Bredasdorp distrik, Wes-Kaap.

deur

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Die plantegroei van Andrew's Field en Tsaba-Tsaba natuurresewaat, Bredasdorp distrik, Wes-Kaap, is hierargies geklassifiseer met behulp van Braun-Blanquet prosedures en TWINSPAN. Die resulterende 10 plantgemeenskappe, 19 subgemeenskappe en 4 variante, is beskryf en ekologies geïnterpreteer. Die plantegroei is gemonster deur gebruik te maak van 171 gestratifiseerd-ewekansig geplaaasde monsterpersele. Die floristiese samestelling, Braun-Blanquet bedekkingsgetalsterkte van elke spesie, en verskeie omgewingsveranderlikes is aangeteken in elke monsterperseel. Die verhouding tussen die plantegroei-eenhede en die verwante omgewingsgradiënte is bevestig deur die uitvoering van DECORANA ordinerings op die floristiese data. Die bewaringsprioriteit van elke plantegroei-eenheid is bepaal deur Rooidata gelysde spesies, kalksteen-endemiese spesies en Kaap Floristiese Ryk endemiese spesies in ag te neem. Die verspreiding van die plantegroei-eenhede kan hoofsaaklik toegeskryf word aan die verskille in klei-/sandinhoud van die grond en aan die mate van blootstelling van die plantegroei aan die dominante winde (Suidoos en Noordwes) van die gebied.

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